

Applicants : Stefan Hennen, et al.
Serial No. : 09/763,483
Filed : May 25, 2001
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Attorney Docket No.: 12758-016001
Client Docket No.: 1998P02408WOUS

AMENDMENTS TO THE DRAWINGS:

Please amend Figs. 1 and 2 as shown in the attached replacement sheets. The amendments replace the German-language text with English, and to remove the legend.

No new matter has been entered.

REMARKS

Claims 1 to 29 are in the application, of which claims 1 and 15 are independent claims. Favorable reconsideration and further examination are respectfully requested.

In the Office Action, the abstract was objected to for the reasons noted on page 2. As shown above, Applicants are replacing the current abstract with a new abstract. Approval thereof is respectfully requested.

The claims were objected to for the reasons noted on page 2 of the Office Action. As shown above, Applicants have amended the claims to address the objections, including removing all multiple dependencies. In addition, the claims have been amended to remove reference numerals and to attend to perceived informalities. A significant change in scope of the claims was not intended, nor was such a change believed to have been effected.

Claims 1 to 3, 15 and 17 were rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,163,551 (Wolf); and claim 16 was rejected under §103 over Wolf. Applicants traverse these rejections for at least the following reasons.

Independent claim 1 is directed to a telecommunications system that includes devices to provide output clock signals that are synchronous to at least one source clock signal. At least one of the devices comprises an interface card to a transmission network. A main clock generator includes a selector to select one of the output clock signals. The main clock generator generates a main clock signal based on a selected one of the output clock signals. Each of the devices includes a quality detector (i) to detect a quality of the at least one source clock signal, and (ii) to interrupt providing an output clock signal in response to a decrease in quality of the at least one source clock signal. The main clock

generator includes an interrupt detector to detect an interruption in an output clock signal provided by at least one of the devices. The selector selects a different output clock signal if the interrupt detector detects that the selected output clock signal is interrupted.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, the art is not understood to disclose or to suggest a device that provides an output clock signal, and that includes a quality detector (i) to detect a quality of at least one source clock signal, and (ii) to interrupt providing the output clock signal in response to a decrease in quality of the at least one source clock signal.

More specifically, referring to Fig. 2, Wolf describes a network containing network elements NE1 to NE6 and a central clock generator SASE. As explained from column 3, lines 56 to column 4, lines 16, the network elements derive clock signals 2M from received message signals STM-N. The clock signals 2M contain a quality indicator which “reflects the accuracy of the clock contained in the message signal STM-N”. The quality indicator is contained in the framework of the original message signal STM-N. The central clock generator SASE selects one of the received clock signals 2M based on the quality indicator, derives a clock signal from the selected clock signal 2M, and uses the derived clock signal to tune its internal clock provider. The resulting signal from central clock generator SASE is then used as the reference clock for network elements NE1 to NE6.

It was said on page 4 of the Office Action that column 4, lines 10 to 26 disclose means, in the devices (for providing the output clock signals), for determining the quality of at least one clock source and for interrupting provision of a clock signal. Applicants respectfully disagree with this characterization of Wolf. As understood by Applicants, the

cited portion of Wolf merely describes what occurs, in the central clock provider, in the event of a disturbance, e.g., a breakdown in signals from its signal is derived. The cited portion of Wolf does not at all describe, in the network elements (NE1 to NE6 – the alleged counterparts to claim 1's devices), a quality detector (i) to detect a quality of at least one source clock signal, and (ii) to interrupt providing the output clock signal in response to a decrease in quality of the at least one source clock signal.

For at least the foregoing reasons, Applicants submit that claim 1 is patentable over the art. Applicants, however, also take this opportunity to point out other differences between the invention of claim 1 and the prior art.

In this regard, Applicants note that Wolf describes essentially what Applicants characterize as the prior art in Fig. 2 of their application. That is, Wolf uses a centralized clock control scheme, in which changes affecting generation of the master clock signal must go through a central processing point, i.e., the SASE.

Furthermore, Wolf's need to transmit a message in the event of failure affects the stability of its system. If, for example, any one of NE1 to NE6 malfunction, resulting in bit errors in a quality indicator, the SASE can make an incorrect timing selection. This type of problem is avoided by the invention of claim 1, because the main clock generator itself does not perform a quality check, but rather detects an interruption in a clock signal. Even in the event of an error (or an interruption) in the connection between the devices and the main clock generator, the system of claim 1 can continue to operate stably.

In addition, the invention allows the main clock generator to be designed completely independently of data formats. If the telecommunications system is expanded

to include a new interface to another transmission network, the main clock generator can continue to operate without modification (because it merely receives the timing signal and detects interruption thereof). By contrast, in the Wolf system, the SASE evaluates the quality of a signal (via its quality information). The Wolf SASE could therefore require modification if additional data formats are to be supported by its system.

Independent claim 15 is a method claim that roughly corresponds to system claim 1, and is believed to be patentable for at least the same reasons noted above.

Each of the dependent claims is also believed to define patentable features of the invention. Each dependent claim partakes of the novelty of its corresponding independent claim and, as such, all dependent claims have not been discussed specifically herein.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

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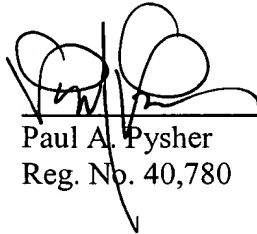
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Applicants' undersigned attorney can be reached at the address shown below. All telephone calls should be directed to the undersigned at 617-521-7896.

Please apply any fees or credits due in this case to Deposit Account 06-1050, referencing Attorney Docket No. 12758-016001.

Respectfully submitted,

Date: February 4, 2005



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